

## **CHAPTER 11**

### **INFORMATION TECHNOLOGY COSTS**

**CHERIE CHAN**

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**CHAPTER 11**  
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**I. SUMMARY AND INTRODUCTION**

In this Chapter, DRA evaluates SDGE's Information Technology (IT) proposal as specified in Chapter 10, Information Technology Systems, of its testimony. SDG&E has requested \$238,119,000<sup>1</sup> in total costs over 34 years to upgrade its IT systems, while achieving \$15,064,000<sup>2</sup> in benefits in direct dollars.

In its evaluation, DRA asks four key questions:

- 1) Is the Request for Proposal (RFP) process fair so far?
- 2) Were the RFPs specific enough?
- 3) Does SDG&E's proposed system architecture make sense?
- 4) Does the timing of SDG&E's technology choice make sense?

On the whole, DRA has found SDG&E's information technology proposal to be generally reasonable so far. However, DRA recommends that SDG&E's proposal be evaluated in-light of a 17-year timeframe in accordance with DRA's general policy recommendation, and that if SDG&E is authorized to proceed, that PG&E's data access requirements, mandated by the Commission in D.06-07-027<sup>3</sup>, be required of SDG&E as well.

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<sup>1</sup> DW-11, table 10-1.

<sup>2</sup> This does not include the Billing Benefit of \$188,078,000 located in table JST – 5. If this is included, the benefit becomes \$201,088,000, resulting in a cost-benefit ratio of 1.18.

<sup>3</sup> D.06-07-027, July 20, 2006CPUC, Final Opinion Authorizing Pacific Gas and Electric Company to Deploy Advanced Metering Infrastructure, page 56.

## **II. TECHNOLOGY SELECTION**

### **A. Is the RFP Process Fair?**

Based on DRA's discovery so far, SDG&E appears to be conducting good-faith efforts to evaluate the proposed IT solutions. A review of the process showed that SDG&E staff systematically and thoughtfully reviewed the proposals of each vendor which met its minimum set of criteria.

SDG&E utilized a detailed matrix to evaluate each of the qualified vendor proposals, then weighted and scored SDG&E's Information Systems and Integration vendors according to a thorough set of very specific criteria. Upon review by DRA, the evaluation of these criteria by SDG&E staff appeared to be reasonably complete and without prejudice.

### **B. Were the RFP's Specific Enough?**

Upon reviewing SDG&E's Requests for Proposals (RFP), DRA found that the RFP's to the vendors require a high level of functionality, but do not specify an approximation of customers. This would require different granularities and frequencies of data. As a result, a potential vendor could be unable to accurately estimate and scope the total number of channels of data that should eventually be stored, because the requirements are too open-ended.

For example, SDG&E's Request for Proposal includes a requirement to address the case of Virtual Metering, meters which are created or calculated by the software and stored in the database, but which do not represent an actual, physical meter or channel of interval data. The RFP requires that the system "capture and aggregate metering data from a specified number of arbitrary physical meters.

1 Virtual meters shall support all metering functionality designated by the lowest  
2 common device capability.”<sup>4</sup> Furthermore, the RFP requires that the system  
3 “support storage of interval data by channel and acquisition frequency (5 to 60  
4 minutes) for all applicable data types.”<sup>5</sup> Each additional channel of data or  
5 increase in data frequency per meter will result in nearly double the data storage  
6 requirement, but SDG&E does not specify the number of meters or channels  
7 requiring such data and manipulations. Because the SDG&E RFP lacks specific  
8 estimates or projections of the number of channels of interval data per customer, it  
9 would be extremely difficult for potential vendors to accurately estimate  
10 SDG&E’s requirements and provide reliable proposals and price points.

11 There also appears to be a disconnect between the Hardware Technology RFP  
12 and the Information Technology RFP in this regard. For example, the hardware  
13 RFP includes a specification for the ability to accept two independent channels of  
14 hourly data from every meter<sup>6</sup>; however, this requirement does not exist in the IT  
15 RFP. It is unclear in the IT RFP whether every meter would actually require two  
16 separate channels of data, or whether this requirement only applies to a small  
17 subset of the customer-base. This disconnect could potentially lead to a  
18 mismatch between RFP responses from the chosen hardware vendors which  
19 provide two channels of data per customer, and an IT system which may be only

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<sup>4</sup> RFP Appendix D Functional and Technical Requirements, 3. Information Systems, Section 6.6.6, Page 6.

<sup>5</sup> RFP Appendix D Functional and Technical Requirements, 3. Information Systems, Section 6.5.2, Page 8.

<sup>6</sup> See Chapter 8, Functionality and Vendor Selection of DRA’s Opening Testimony in this proceeding, by Steve Hadden.

1 specified to handle one stream of meter data per customer on average, resulting in  
2 another under-estimation of data storage requirements. DRA recommends that  
3 SDG&E specify and clarify its intent with regard to the volume of data required to  
4 ensure that potential vendors size their offerings accordingly.

### 5 **C. Architecture**

6 From preliminary process diagrams, it appears that SDG&E will utilize a  
7 Meter Data Management System (MDMS) as a data storage, retrieval, and  
8 viewing hub. This is significantly different from PG&E's implementation, which  
9 appears to lean more heavily on an upgraded central Customer Information  
10 System (CIS) to manage the influx of data.

11 DRA does not hold a position on which solution is preferred. SDG&E's  
12 proposal requires fewer changes to the Customer Information system from which  
13 bills are produced, because billing determinants would be framed in the MDMS  
14 and passed to the CIS. Aside from the MDMS and Middleware, all other existing  
15 systems at SDG&E remain in place, including the CIS or billing system. DRA  
16 notes that this will result in significantly lower training costs specifically required  
17 to support AMI, because the core software used by most staff, including Customer  
18 Service Representatives, will not be significantly modified or upgraded.

19 Nevertheless, DRA notes that that these upgrade costs are merely being deferred  
20 to a later date. SDG&E will eventually be required to upgrade its CIS system in  
21 subsequent projects, and additional costs will be required then, whereas significant  
22 upgrade costs were included in PG&E's AMI proposal. To conduct a like-  
23 comparison with PG&E's implementation, DRA recommends that the CPUC

1 consider the future-cost of updating SG&E's CIS system when evaluating  
2 SDG&E's IT proposal.

3 **D. Does the Timing Make Sense?**

4 SDG&E served testimony on March 28<sup>th</sup>, 2006, approximately 14 months  
5 before it will ultimately make its AMI technology selection decision. DRA's  
6 evaluation is at best a cursory evaluation of SDG&E's intentions, but not its  
7 commitments. SDG&E has extended the AMI technology selection decision to  
8 mid-2007 in order to remain open to any technological developments for as long  
9 as possible while still meeting SDG&E's goal to deploy AMI in its service  
10 territory by year-end 2010. The lengthy selection period effectively extends by a  
11 year the opportunity for new technologies to emerge. It also will allow SDG&E  
12 to conduct thorough and comprehensive field tests of short listed AMI  
13 technologies."<sup>2</sup> However, because no decision has been made, DRA does not  
14 have an actual proposal or implementation plan to evaluate, and essential  
15 components of any business case, much less a proposal worth over 200 million  
16 dollars.

17 At this time, DRA finds SDG&E's process to be reasonably fair and  
18 thorough. However, DRA requests an opportunity to evaluate and comment on  
19 SDG&E's proposed contract with its chosen IT and systems integrators, and that  
20 SDG&E be required to provide regular updates to the service list of this  
21 proceeding for comment.

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<sup>2</sup> UCAN Data Request 4

### 1     **III.     CONCLUSION AND OTHER DRA RECOMMENDATIONS**

#### 2             **A.     Customer Access to Data**

3             In Decision 06-07-027<sup>8</sup>, the Commission directs that PG&E file an  
4     application with supporting testimony to “allow the development of an adequate  
5     record whereby we might grant third parties access to customer data and create a  
6     public interface with PG&E’s data systems.<sup>2</sup>”    The Commission further requires  
7     PG&E to conduct publicly noticed open workshop discussions prior to PG&E’s  
8     filing.    DRA recommends SDG&E also be directed to participate in this open  
9     workshop process, so that third parties are granted access to customer data in a  
10    uniform manner across California.    DRA concurs with the Commission that the  
11    utility “must focus on providing the lowest cost or even no cost (especially no  
12    tariff rate or charge) for the most basic of timely access for residential consumers.  
13    Any program feature likely to increase the cost of the system should be focused on  
14    the larger customers who are most likely to use and benefit, and therefore should  
15    pay for enhanced program features.”<sup>10</sup>    SDG&E has not signed contracts with  
16    potential vendors.    Unlike PG&E however, these additional requirements are now  
17    known, and something can be done to include these new requirements into the  
18    overall project plan to prevent unnecessary change orders and re-work.

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<sup>8</sup> Decision 06-07-027, Final Opinion Authorizing Pacific gas and Electric Company to Deploy Advanced Metering Infrastructure, July 20, 2006, Pages 54-57.

<sup>2</sup> Id. Page 56.

<sup>10</sup> Id., Page 57.



1           **B.      Seventeen Years, One-Generation**

2           Given the dynamic nature of the Information Technology industry and  
3   DRA's overall policy recommendation, DRA recommends that SDG&E's IT  
4   proposal be evaluated in light of a 17-year timeframe. The specific dollar-  
5   recommendation is included in Chapter 1, DRA's overall policy testimony.

6           **C.      Overall DRA Recommendation**

7           In summary, DRA has found SDG&E's proposed IT business plan and RFP  
8   process to be reasonable so far. However, DRA recommends that the  
9   Commission and the members of this proceeding's service continue to be  
10   informed of SDG&E's IT proposals on a regular basis until plans become more  
11   definite. SDG&E should be mandated to follow the same customer access  
12   requirements detailed in Commission Decision 06-07-027, and the commission  
13   should evaluate SDG&E's IT proposal from a 17-year perspective.